

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An optical head device comprising:
a light source;
an objective lens for focusing light emitted from this light source onto an optical recording medium;
a photodetector for detecting light reflected off said optical recording medium; and
one or more passive aberration correction optical elements which are fixed within a path of said light between said light source and said objective lens, and correct aberration of said light generated within that path and caused by manufacturing and adjustment errors of the optical components which vary from one such optical head device to another,
wherein said one or more passive aberration correction optical elements are selected from amongst a plurality of different passive aberration correction optical elements, in accordance with said aberration which varies from one such optical head device to another, said plurality of different passive aberration correction optical elements being structured to provide correction for mutually different types, signs, and quantities of aberration.

2. (Cancelled)

3. (Previously Presented) The optical head device according to claim 1, wherein said aberration is one type of aberration selected from coma, spherical aberration, astigmatism, and arrow aberration, a single passive aberration correction optical element is placed within the path of said light, and the single passive aberration correction optical element corrects said one type of aberration.

4. (Previously Presented) The optical head device according to claim 1, wherein said aberration includes two types of aberration selected from coma, spherical aberration, astigmatism, and arrow aberration, two passive aberration correction optical elements are placed within the path of said light, and one of the two passive aberration correction optical

elements corrects one of said two types of aberration, while another of said two passive aberration correction optical elements corrects another of said two types of aberration.

5. (Previously Presented) The optical head device according to claim 1, wherein said aberration includes three types of aberration selected from coma, spherical aberration, astigmatism, and arrow aberration, three passive aberration correction optical elements are placed within the path of said light, and of said three passive aberration correction optical elements, one passive aberration correction optical element corrects one of said three types of aberration, another of said three passive aberration correction optical elements corrects another of said three types of aberration, and yet another of said three passive aberration correction optical elements corrects yet another of said three types of aberration.

6. (Previously Presented) The optical head device according to claim 1, wherein said aberration includes coma, spherical aberration, astigmatism, and arrow aberration, four passive aberration correction optical elements are placed within the path of said light, and a first passive aberration correction optical element of the four passive aberration correction optical elements corrects said coma, a second passive aberration correction optical element corrects said spherical aberration, a third passive aberration correction optical element corrects said astigmatism, and a fourth passive aberration correction optical element corrects said arrow aberration.

7. (Previously Presented) The optical head device according to claim 1, wherein at least one of a light incident surface and a light exit surface of said passive aberration correction optical element is a stepped surface comprising at least 2 steps.

8. (Withdrawn - Previously Presented) The optical head device according to claim 1, wherein at least one of a light incident surface and a light exit surface of said passive aberration correction optical element is formed as a curved surface.

9. (Previously Presented) The optical head device according to claim 1, wherein said aberration includes coma, and a passive aberration correction optical element

placed within the path of said light is installed so that a direction of aberration corrected by the passive aberration correction optical element substantially matches a direction of said coma.

10. (Previously Presented) The optical head device according to claim 1, wherein said aberration includes astigmatism, and a passive aberration correction optical element placed within the path of said light is installed so that a direction of aberration corrected by the passive aberration correction optical element substantially matches a direction of said astigmatism.

11. (Previously Presented) The optical head device according to claim 1, wherein said aberration includes arrow aberration, and a passive aberration correction optical element placed within the path of said light is installed so that a direction of aberration corrected by the passive aberration correction optical element substantially matches a direction of said arrow aberration.

12. (Currently Amended) A method of manufacturing an optical head device comprising the steps of:

assembling an optical system including a light source, an objective lens for focusing light emitted from this light source onto an optical recording medium, and a photodetector for detecting light reflected off the optical recording medium;

measuring aberration generated in a light path within the optical system from said light source to said objective lens and caused by manufacturing and adjustment errors of the optical components which vary from one such optical head device to another; and

selecting, from amongst a plurality of different passive aberration correction optical elements, based on the results of the measured aberration, one or more passive aberration correction optical elements for correcting the aberration of said light which varies from one such optical head device to another, said plurality of different passive aberration correction optical elements being structured to provide correction for mutually different types, signs, and quantities of aberration, and then fixing the optical element or elements within said light path of said optical system.

13. (Cancelled)

14. (Previously Presented) The method of manufacturing an optical head device according to claim 12, wherein the step of installing said one or more passive aberration correction optical elements within the optical system comprises the step of rotating said passive aberration correction optical element, using an optical axis of said light as a rotational axis, so that a direction of aberration corrected by said passive aberration correction optical element matches a direction of aberration generated within the path of said light.

15. (Previously Presented) An optical information recording and/or playback apparatus comprising: the optical head device according to claim 1; a first circuit for driving said light source; a second circuit for generating a playback signal and an error signal based on an output signal from said photodetector; and a third circuit for controlling a position of said objective lens based on said error signal.

16. (Original) The optical information recording and/or playback apparatus according to claim 15, wherein said first circuit is for driving said light source in accordance with a recording signal.

17. (Original) The optical information recording and/or playback apparatus according to claim 15, wherein said first circuit is for driving said light source with a constant output.